1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1



Governor had only a general power of co-ordination and discipline. These departments, directed from Istanbul, included the administration of justice: a field in which Turkish law had by 1900 developed far beyond its Shara' origins. The composite and ill-coded civil Majalla, a mass of *ad hoc* legislation, and a body of French commercial law had been adopted. The resulting codes were not only imperfectly drafted and full of anomalies, but too often quite unsuited to 'Iraqi needs. The Courts which administered them represented a comprehensive and not ill-considered system spoiled by the delays and abuses in its practical working, by its exclusive use of a foreign language, and by the underpaying of the judges. The privileged position of foreigners, protected by their outdated and resented Capitulations, was assured by special arrangements in both civil and criminal matters.

Abundant work for the Courts was provided by the department of Land Registry, or Tapu. It had been inaugurated in 'Iraq by Midhat Pasha as a land-settlement and stabilizing measure; but in unsurveyed agricultural lands, largely in immemorial tribal possession and far from conforming to the official view that 'unalienated State lands' were at Government's free disposal, the Tapu system could do little save create new disputes, bestow rights on parties powerless to exercise them, and destroy the best elements in the shaykh–tribesman relationship. The immense practical difficulties of land settlement in 'Iraq were unrealized, and the whole essential background of cadastral survey and social control was lacking.

In the field of medicine and quarantine the standard of Turkish doctors (rarely Turkish by race) was low, their assistants and inspectors were untrained, their equipment was inadequate. The medical services, accustomed to rely on mission hospitals and dispensaries, were scanty in the towns and non-existent outside. Educational services made a slightly better showing, though standards were everywhere below those of the foreign or foreign-inspired mission schools. Free primary schools, well organized on paper, existed at most towns, and secondary also at the larger. Industrial schools had been founded at Baghdad and Basra, and higher theological learning was available. The military educational system was distinct. The sons of civil notables and high officials went to Istanbul to complete their Turkish education, and a few sons of the greater shaykhs to the Tribal College. The teaching profession was ill reputed and unpopular, its methods primitive.

These do not conclude the list of the 'imperial' departments. The Public Debt administration, handling selected revenues on behalf of the European creditors of the Porte: the local offices of the Régie Co-intéressée who held the monopoly for the manufacture

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1



personal followers were unpunishable. Three *causes célèbres* of the period should be mentioned. The first was the murder in Mosul of Shaykh Sa'id Barzinji of Sulaymaniya on the first day of 1909. It was an act of defiant violence against a figure of the greatest eminence; and the aftermath of the murder convulsed the Sanjaq of Sulaymaniya. The second case was the murder of Farid Beg, General and ex-Mutaṣarrif of the Muntafiq, in Baṣra bazaar in June 1913. The third was the murder of Aḥmad Bey, Commandant of Gendarmerie in Baghdad, in August 1913.

In the urban services there was fitful progress. New buildings of some pretension appeared towards South Gate in Baghdad, in the outskirts of Karbalā and Mosul, at the 'Ashar suburb of Baṣra. The Tigris-side towns, and some of the Kurdish, developed fast. Kirkuk and Arbil doubled in size from 1890 to 1914. Ḥalabja under its Jāf dynasty was further embellished. Military hospitals and a very few municipal dispensaries made their appearance. The Jewish hospital of Mir Elias was opened in 1910, a new building for the C.M.S. in Baghdad was completed in 1913, while their Mosul hospital shut and reopened seasonally. But medical arrangements in general remained primitive, quarantine was still largely a bribe-extracting farce, and no efforts were made seriously to combat disease or malnutrition. Street lighting improved, hotels appeared in the larger towns under Armenian or Chaldean enterprise, a cinema was opened in Baghdad in 1911.

Cross-river steam-ferries, public gardens, wider streets, a zoo, improved steel bridges, tramways, electric lighting—all these had their place in the plans of incoming Walis and Mutaṣarrifs, and in fact some success in municipal improvement—in streets, gardens, offices, and amenities—emerged from this period, though the schemes even of a Nadhim Pasha remained nine-tenths abortive. The Kufa–Najf tramway was completed during this period. A company was formed in London in 1912 by a leading Baghdadi, Maḥmud Shahbandar, for electric tramways and lighting.

In trade and commerce there was some advance. The staple exports of the territory still varied annually according to the harvest and the level of inland security. The quantities of dates, grain, seeds, gall-nuts, gums, animals and animal products, and the transit items from Persia showed slight increases. The tonnage and value of imports had been more than doubled since 1900. The increase reflected largely the needs of railway construction, partly the increased use of irrigation and other machinery and paraffin, partly a perceptibly rising standard of urban life with its greater demands for cotton cloth, sugar, tea, and matches. The moderate inroads of Russia and Germany into the 'Iraq markets are elsewhere mentioned. The great bulk of import and export trade was

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1



the American School of Oriental Research founded in 1923 and the British School founded in 1929 maintained headquarters in Baghdad, and both published the results of their researches.

In the field of Public Health the Government services had achieved much, but not the impossible. They had faced an immense field to cover and to conquer, had started from nothing, and had been always restricted by lack of funds and trained officials; and meanwhile, inevitably, the disease- or weakness-producing factors in the territory, and the apathy and conservatism of its people, continued. The problem of general malnutrition and resulting lack of physical vigour was, in fact, the problem of poverty: the cure, still distant, lay as much or more in increased wealth as in increased enlightenment; and the same was true, in spite of active and multiplying maternity and child-welfare clinics, of an infant death-rate still tragically high. Little, save increasingly comprehensive and practical study, had yet been done to combat the curse of hookworm, malaria, or bilharzia; a comprehensive effort against these diseases and against tuberculosis, eye-disease, and the typhoid group must call insistently for more time, more funds, and more specialized staff. Steps taken against epidemic disease had been successful; plague and cholera had scarcely appeared for a quarter-century, and smallpox was well handled with full modern resources. Urban sanitation had been improved, sewage schemes adopted, and sanitary inspector training developed; but conditions in this respect over most of the territory remained wholly primitive, and the majority of 'Iraqi doctors were little interested in public health administration. The country at large was served by some eighty hospitals, of which three-quarters were general and a quarter specialized for fevers, mental and venereal diseases, leprosy (at 'Amara), children's and chest and eye diseases; a quarter of the whole were in Baghdad. Non-governmental hospitals were those of the oil companies, foreign missions, and the minority communities. The Jewish Mir Elias Hospital was still open, for patients of all creeds; all other Jewish hospitals and dispensaries had been closed. The Railways, the Port, the Police, and the Army maintained their separate Medical services. The supply of doctors, thanks to the Royal Medical College, had much improved since the thirties, but some reliance on foreigners was still necessary; some thirty of these were so employed in 1951 and recruitment of more was in progress. Registered practitioners in all numbered some 300 in 1945, 420 in 1949. The reluctance of 'Iraqi doctors to serve in the remoter regions—or, indeed, elsewhere than in Baghdad—was still an embarrassment. Nevertheless, the busy and valued hospitals and dispensaries maintained in all parts of 'Iraq were playing a major stabilizing as well as a

1: Longrigg G-4, 5 (ca. 1915-1940) MH1 Iraq MH1



743 humanitarian part, and high hopes for the future could reasonably be formed.

## 6. THE STATE

000 The closing pages of this work will be given to a review of 'Iraq's relations in the mid-twentieth century to its neighbours and to the world at large, and to the structure of its public life.

648 The record of the League of Arab States had by 1950 been written in terms sadly reminiscent of other Leagues based on international concord: like the League of Nations and the United Nations organization itself, it had shown the extreme difficulty of co-ordinating national differences and asperities. Previous pages have described both the general factors unhelpful to Arab Unity, and the particular issues which since 1945 had led to cleavages; nor was the situation at the close of our period hopeful of the recovery of a consistent united front between the Arab States. If generous single gestures could still be made—the dispatch, for instance, of 'Iraqi forces to Damascus in the spring of 1951—and pacts of collective defence could be drafted, the pressure of national loyalties and interests and persistent antipathies must preclude, in the foreseeable future, anything more than occasional co-operation and the preservation of some façade of unity. The Powers, especially Great Britain, were currently accused by some of desiring complete or regional Arab Unity, by others of working to destroy it; either attitude was somehow a manifestation of imperialism. In fact, nations of the West seemed generally favourable to League solidarity in so far as it could promise to produce cohesion and stability in western Asia; but they were otherwise willing, or indeed forced, to leave the issue in the hands of the concerned nations. 'Iraq's leading part in inter-League politics and her lively interest in *'Aruba*, Arabism, wherever involved, were likely to be permanent features of her foreign policy, at the risk of distracting her rulers from domestic interests and demands far more important to the 'Iraqi masses.

In relations with Persia there was no reason to expect any change in the actual attitude prevailing on either side of the Perso-'Iraqi frontier; it would doubtless continue for many years to be one of bickering, even of antipathy, but also of the recognition of a broad common interest. Nor need relations with the Turkish Republic deteriorate in the absence of any particular clash of interests such as might, indeed, come into existence through tension caused by frontier troubles, or by interference with upper Euphrates or upper Tigris waters, or by a differing international alignment; the attitude of 'Iraq was in 1950 one of guarded amity, least cordial among those pan-Arabists who feared the diversionary effect of non-Arab friendships.

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



164 therefore vitally important that more attention be devoted in the future to the preventive aspects of public health work.

***Prevention of Disease***

744 751 Many measures could be taken to strengthen the preventive aspect of public health work. Doctors and nurses must, above all, be imbued with its importance, for they have countless opportunities to impress on their patients the need for proper hygiene and sanitation. Thus social medicine, involving the study of the environmental factors bearing on health and of appropriate measures for the prevention of disease, should be taught as part of the qualifying course in the medical school at Baghdad. Far more emphasis also needs to be placed on the teaching of hygiene in elementary and secondary schools. Children should be taught not only good personal habits, but also the importance of sanitation in and around the home. Special classes might be given in the prevention of the main endemic diseases, by the school medical officer whenever possible. Health education must likewise be given an important place in the curriculum of teachers' training colleges and special courses in the prevention of diseases associated with irrigation and cultivation should be provided in the School of Agriculture and the School of Engineering. Hospitals should be an object lesson in hygiene and every effort made to impress on patients the importance of personal and domestic hygiene. The interest of adults in public health can be stimulated by visual education and by organizing "health weeks", the first of which was held in Diwaniya with conspicuous success during the Mission's stay. The army and police have an excellent opportunity to teach habits conducive to good health. Prospective farmers for new settlement projects should be medically examined to restrict, as far as possible, the introduction of endemic diseases into these settlements. To prevent water pollution it would be desirable to locate villages in such settlements away from irrigation canals wherever possible.

● 743 759 The Mission strongly recommends that the number of village dispensaries, which is now over 400, be gradually increased and that they be equipped to serve as public health centers. Such centers would be simple in function, aimed primarily at providing elementary medical and health assistance to as many people as possi-

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



ble. As conditions permit, the scope of their services could be expanded. At the present stage it will usually be sufficient to have a specially trained medical assistant rather than a doctor in charge. At present there is no separate cadre of medical assistants. It is therefore suggested that the existing School for Health Officials be converted into a training school for such assistants or aides. The medical assistant in charge of a dispensary will need to consider himself as the village sanitation officer and enlist the help of the village elder in organizing a cooperative effort to keep the village clean. He will also need the assistance of a village midwife and, at a later stage, of a public health nurse. The traditional midwife, if properly trained, could have great influence in improving the standards of personal and domestic hygiene, in combatting infant mortality and giving simple advice on the care of infants. Such midwives, when drawn from the ranks of the people whom they will serve, will have a ready entry into homes and will be able to speak in terms which will be readily understood. It is therefore recommended that a school for training such midwives, recruited from the villages, be established. A similar school should be set up for town midwives. It would be desirable to have three foreign midwives appointed to direct this training program.

In the cities a considerable improvement in sanitation could be effected through the creation of a sanitary corps. Such a corps should be charged with house-to-house inspection to detect health nuisances and prevent fly and mosquito breeding, with the inspection of eating-houses, foodstuffs and food handlers, and with the improvement of environmental hygiene in general. A foreign public health or sanitary engineer would be required to organize this service and establish the facilities and courses for training appropriate numbers of sanitary overseers and sanitary inspectors who, in turn, would impart the necessary instruction to the house-to-house inspectors.

The prevention of hookworm, malaria and bilharzia warrants special attention. These diseases are widely prevalent and through their general debilitating effects materially lower productivity. The incidence of hookworm would be reduced by improvements in sewage disposal, the closing of open drains, provision of suitable latrines and the wearing of shoes. Bilharzia, which is transmitted

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



by a snail living in irrigation canals, can be combatted by elimination of stagnant, polluted water in which the snail thrives and by treating canals twice yearly with copper sulphate. DDT spraying and the elimination of stagnant water assist in the reduction of malaria. In order to combat both malaria and bilharzia, major irrigation canals should be designed so as to maintain a rate of water flow no less than three miles per hour, and minor distributory canals so as to insure rapid drying-out after use. It is important that one complete "dry-out" per week be enforced in every section under irrigated cultivation.

Knowledge of such methods of combatting disease is already available in Iraq. What is needed is wider dissemination of the knowledge and a vigorous campaign to give it effect. The Endemic Diseases Institute in Iraq has done much useful work in this field but it has been handicapped by insufficient transport, supplies and technical personnel. In the future there will be no justification for denying the Institute adequate funds for its work. It would be well to organize special campaigns in those provinces or districts where the incidence of a particular endemic disease has been especially high. Such a campaign would involve a simultaneous effort to treat the people already afflicted in the locality and to teach local officials and the local inhabitants in general the appropriate preventive measures. Mobile dispensaries and mobile vans equipped to show educational films would be especially useful for this purpose.

***Curative Services***

On the curative side, principal emphasis must first be placed on the improvement of existing hospitals and an expansion in the nursing service. In its five-year program the Development Board has allotted ID 3,800,000 for medical service buildings. The Mission believes that a large part of this sum should be used to modernize, extend or replace existing hospitals and improve their facilities for diagnosis and treatment rather than to construct additional hospitals. In the monograph on public health the Mission has listed the most urgent projects of this kind which it suggests should be undertaken in adition to those for which provision was made in the first annual budget of the Development Board. While the number

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



of hospitals may eventually have to be increased, it is of greater importance today to build more dispensaries.

Improvements in hospital administration are also desirable. As long as hospital administration remains in the hands of doctors, they should be given a course in this subject after qualifying.

There is at present one doctor to every 7,000 in the population. With increased accommodations and laboratory facilities at the medical schools, the number of doctors qualifying annually can be increased from 35 to 80. While low, the number of doctors is not seriously inadequate provided they are well distributed and supplemented by sufficient well-trained medical auxiliaries. A large number are concentrated in Baghdad, however, and there is an excessive trend toward specialization. Far more general practitioners are needed in the provinces, but it is clear that better housing accommodations and higher pay will be necessary to attract them.

Among the medical auxiliaries the most serious shortage is that of qualified nurses. In one hospital, for instance, it was noted that there were only 12 trained nurses as compared with 21 doctors. The Mission recommends that a school for practical nurses be established in each province, beginning with Basra, Mosul and the Karkh hospital in Baghdad province. It would also be desirable to set up local schools for male "dressers" who are now largely self-taught. With proper training dressers can relieve nurses of many of their duties. The Mission suggests that two foreign nursing sisters be employed in each province to supervise nursing and give instruction, and that the staff at the Royal Hospital in Baghdad be strengthened by the addition of five more foreign nursing sisters. At present Moslem women are not attracted to nursing. The employment of more foreign nurses may help to demonstrate that nursing is a highly respected, skilled profession abroad. More women might also be inclined to adopt a nursing career if nurses were provided with better housing and given status comparable to that of school teachers.

Aside from nurses and dressers, hospitals lack enough well-trained laboratory assistants, radiographers, storekeepers, physiotherapists and operating room attendants. Special courses should be instituted to train personnel in each of these categories. Refer-

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1

ANNEX F

# PUBLIC HEALTH

## I. Introduction

***Extent of Progress Made in Public Health***

In the past 30 years health services in Iraq have improved considerably. In 1918 the country had only one hospital, contrasted with the present 89 hospitals (4,812 in-patient beds or one bed per 1,000 people) and 448 dispensaries. Control measures including the use of vaccines, particularly for smallpox, have cut down the incidence of epidemics during the last few years. Cholera has not occurred since 1931 and the plague not since 1935. Smallpox and louse-borne typhus also seem to be under control. An Institute of Endemic Diseases has been set up with headquarters in Baghdad. Steps have already been taken to control malaria and a good deal of information is being assembled on schistosomiasis (bilharzia) and ankylostomiasis. Nevertheless, the main endemic diseases—malaria, schistosomiasis, trachoma, and ankylostomiasis—are still very common.

In 1949 there were 797 doctors practicing in Iraq, of whom 419 or 53 percent were in Baghdad. There were about 387 government pharmacies and 252 pharmacists working in private pharmacies in the larger towns.

The doctors are supplemented by 265 health officials, originally trained primarily to staff village dispensaries, and 400 nurses and 659 dressers (male hospital attendants), about one to every four or five hospital beds. There are also private nurses, midwives and dressers, and 130 public vaccinators who are employed on a permanent basis. In 1948 and 1949, 3,061,955 and 2,080,777 smallpox vaccinations were made (the 1947 census showing a total population of 4,799,500).

Malaria, trachoma and bronchitis were the main hospital cases; the dysenteries, anemias, wounds, syphilis and phthisis were

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



reliable figures on its true incidence. One real problem is that the public has come to regard tuberculosis as a shameful disease so that few people report to hospitals in the early stage of the illness. The government has applied to the World Health Organization for assistance in dealing with tuberculosis. It is understood that WHO will send a team consisting of a consultant, an epidemiologist, a bacteriologist and two nurses to begin a BCG campaign; and that, by arrangement with UNICEF, they will be assisted by two medical officers, two nurses, and one administrator. The government will build a suitable "chest center" in Baghdad where the WHO team will work and where local staff can be trained.

### *Eye Diseases*

Eye diseases are common in Iraq, as in the rest of the Middle East. It has been estimated that there are 40,000 totally blind persons, most of whom cannot work and must be cared for, thereby becoming a burden to the community. About one in five of the total population have been treated annually for conjunctivitis or trachoma in the past six years. To a large extent these also are social diseases, although some doctors in Iraq think certain eye diseases may have a nutritional basis in the consumption of large quantities of polished rice.

## II. The Curative Services

### *Hospitals and Dispensaries*

In general, the curative services have received more attention than preventive medicine. Iraq's 89 hospitals are unevenly distributed, however, since one third of them are in the Baghdad area and the remaining 59 are divided among the other 13 provinces. It is true, of course, that there is higher concentration of people in Baghdad.

Of the 89 hospitals, 58 are general and six are for infectious diseases, three for eye diseases, two for venereal diseases and one for lepers. There are also two hospitals for children, one for

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



743 women and children and one for mental dieases. A new tuberculosis hospital and sanitarium has just been opened in Baghdad. The Army, Railways, Port of Basra, Police, Ministry of Education, and the oil companies maintain their own hospitals. There is also an American Mission hospital.

While some hospitals are adequately equipped and staffed, many of them are seriously in need of repair and equipment, especially dental equipment. Most of the hospitals suffer from an acute shortage of trained subordinate staff (medical aides or nurses). Hygienic conditions in some leave much to be desired. Hospital administration appears to be weak throughout the country, with a few notable exceptions such as the Royal Hospital in Baghdad. This is the teaching hospital of the Royal Medical Faculty and has practically all modern medical facilities. Several Iraqi doctors are now attending a course on hospital administration in foreign countries, but so far the number attending these courses is small. It would be desirable to give such a course in Iraq to young doctors after qualifying.

Simple conditions are treated in dispensaries of which there are 448—403 of them government institutions—fairly evenly distributed throughout the country. The physical facilities and staffs of such dispensaries vary widely. Some are in the charge of a doctor but the majority are run by health officials and dressers. Except for vaccination against smallpox, the dispensaries do very little preventive medical work. Since there is only about one dispensary to every 12,000 of the population, it is obvious that the number must be increased as additional staff can be trained.

654 743 The Development Board has planned an annual expenditure of ID 700,000 on medical service buildings in its five-year program extending over the period 1951-52 to 1955-56. A detailed breakdown of this expenditure was available only for the first year. On the whole the total outlay envisaged over the entire period would seem adequate. In the first instance, however, efforts should be concentrated on the replacement, repair and modernization of existing hospitals. In addition to the projects of this nature for which provision was made in the first budget of the Development Board, the following would appear to be most urgent:

7: International Bank N. S-4 (1951) 1952 MH1 Iraq MH1



654
743

| | | |
|---|---|---|
| Additional provision for reconstruction of the Karkh and Kut Hospitals | ID | 200,000 |
| Repairs to the Maude Hospital (Basra), Amara Hospital, Erbil Hospital and Suleimaniya Hospital | | 250,000 |
| Infectious disease blocks for the Erbil and Mosul Hospitals | | 65,000 |
| Maternity block for the Hilla Hospital | | 25,000 |
| Laundry for Diwaniya Hospital | | 12,000 |
| Additional wards for Mosul and Kirkuk Hospitals | | 80,000 |
| Completion of Mental Diseases Hospital | | 250,000 |
| Additional provision for operating facilities at Royal Hospital | | 50,000 |
| Children's Ward at Royal Hospital | | 40,000 |
| Maternity block at Royal Hospital | | 40,000 |
| Dental equipment for hospitals | | 20,000 |
| Total | ID | 1,032,000 |

As it becomes possible to devote more attention to increasing facilities for treatment, priority should be given generally to the construction of additional dispensaries in the rural areas.

***Doctors***

759
[758]

At present there is about one practicing doctor to every 7,000 of the population, but many of the doctors are concentrated in Baghdad. Only about 35 doctors are now being registered annually, but with increased accommodations and more laboratory facilities, it will be possible to enroll more students so that at least 50 will qualify as doctors annually. This number may be sufficient for Iraq's needs, provided that an adequate number of suitably trained health officers are available for service in village dispensaries and that nurses and dressers receive more training.

[874

Doctors receive their training at the Royal Faculty of Medicine, which was founded in 1927. The syllabus and teaching seem, on the whole, to be good. They emphasize adequately the study of the endemic diseases, although they do not give enough weight to the teaching of public health and preventive medicine. The recent appointment of a professor of public health should give a better balance to the program of instruction. Public health as such should probably be taught as a postgraduate course. It would include such subjects as public health administration, public he

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



844 received training of any sort. In Baghdad there is a government maternity home but it has had very little to do with the practicing midwives.

It is presently estimated that 900 midwives are needed in the villages, 300 in the towns and 80 in the hospitals. In order to take into account the great difference between conditions in the towns and villages, it would be desirable to institute two courses of training:

1. A ~~one-year~~ course for literate girls and women who will become midwives in urban populations and fill government posts; and—
2. A course lasting approximately six months for illiterate (or largely so) practicing midwives who, after training, will return to their own villages.

A few Iraqi women have taken a course in midwifery outside of Iraq and these women, together with three foreign midwives, could serve as the teaching staff at the outset.

An estimate of the staff and buildings required and their cost follows:

(*a*) SCHOOL FOR TOWN MIDWIVES:
1. Staff: three staff midwives, one director, cook, etc.
2. Buildings: quarters for 20 pupils, 10 maternity beds, etc.
3. Capital cost: ID 40,500

Output—20 trained midwives a year.

(*b*) SCHOOL FOR VILLAGE MIDWIVES:
1. Staff: three staff midwives, one director, cook, etc.
2. Buildings: quarters for 15 pupils, six maternity beds, etc.
3. Capital cost: ID 31,500

Output—30 village midwives annually.

(*c*) ONE PRINCIPAL FOR THE SCHOOLS

### *Establishment of Village Health Centers*

743 Iraq is a country of scattered villages and hamlets and of great distances; to bring medical aid, however simple, to the greatest possible number of people it would seem wise to increase the number of dispensaries as staff becomes available. It might even be possible to attach some mobile dispensaries to the larger sections of the nomadic tribes.

The village dispensary should become a center for all health activities in the area. Not only should the health official (or medi-

7: International Bank N. S-4 (1951) 1952 MH1 Iraq MH1



cal assistant) treat simple conditions—and he could well treat 743 ●
cases of most of the major endemic diseases—but he should also be the village "sanitarian". The village midwives should be based at the health center and draw their supplies there. Vaccination against smallpox—of prime importance in Iraq—and other protective innoculations could, as required, be carried out in the centers. Later, public health nurses could be added to the center staffs.

The number of health centers must necessarily depend, among other things, upon local population density, distances and means of communication. Visiting doctors from the hospital to which the center is attached could call at regular intervals to see special cases referred to them by the health official. By such means as these, medical assistance and advice could be brought within reach of most of the people and the best use be made of the doctor's services. At present the district or *qadha* doctors have no means [758] of transport to visit dispensaries.

The additional health officials who would staff these centers could be selected from among the hospital dressers. Since these men have already had considerable clinical experience, it should be possible to train them in about a year. Because they are much closer to the village people than the visiting doctors, they can do a great deal to help the local people. One Iraqi doctor stated that an experienced and happy health official can do better work in a village than an unhappy and disgruntled newly-qualified doctor.

There are about 400 dispensaries at present, some of which are staffed only by dressers. Assuming 20 medical assistants can be trained annually, it should be possible to staff all the present dispensaries and 200 new ones with medical assistants in less than 20 years. The buildings and staff now used by the School for Health Officials (founded in 1932) could equally well be used as a training school for medical assistants.

### *Training of Public Health Nurses*

As soon as some midwives have been trained, a program 744
should be started for the training of public health nurses. These women would hold positions of considerable responsibility, and every candidate for the course should already be a trained nurse and a midwife.

T: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



# APPENDIX

743
758

## TABLE 1

HOSPITALS, HOSPITAL BEDS, DISPENSARIES AND DOCTORS
(by provinces, with populations)

| Provinces | Hospitals | Beds | Dispensaries | Doctors | Population |
|---|---|---|---|---|---|
| Baghdad | 30 | 1,988 | 56 | 419 | 805,293 |
| Mosul | 8 | 303 | 47 | 67 | 601,589 |
| Basra | 7 | 539 | 21 | 65 | 352,039 |
| Hilla | 5 | 264 | 21 | 25 | 261,903 |
| Diyala | 3 | 87 | 29 | 24 | 273,336 |
| Diwaniya | 3 | 117 | 25 | 22 | 333,787 |
| Dulaim | 4 | 181 | 18 | 12 | 193,294 |
| Erbil | 4 | 100 | 23 | 17 | 240,273 |
| Kirkuk | 5 | 207 | 28 | 58 | 285,878 |
| Suleimaniya | 3 | 103 | 15 | 14 | 222,732 |
| Kerbela | 3 | 228 | 14 | 22 | 276,670 |
| Muntafiq | 5 | 205 | 17 | 18 | 369,806 |
| Kut | 4 | 127 | 22 | 14 | 224,792 |
| Amara | 5 | 353 | 12 | 20 | 308,108 |
| Totals | 89 | 4,802 | 348 | 797 | 4,749,500 |

## TABLE 2

757

NUMBER OF VISITS TO HEALTH INSTITUTIONS FOR TREATMENT
(by provinces)

| Provinces | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 |
|---|---|---|---|---|---|---|
| Baghdad | 1,004,856 | 1,255,348 | 1,523,935 | 1,471,621 | 1,553,020 | 1,664,023 |
| Basra | 306,612 | 312,842 | 378,903 | 373,735 | 381,907 | 382,241 |
| Mosul | 423,819 | 455,584 | 509,410 | 541,881 | 576,291 | 644,647 |
| Amara | 269,536 | 291,722 | 336,025 | 345,873 | 297,987 | 279,273 |
| Erbil | 144,453 | 155,649 | 147,164 | 165,704 | 150,572 | 168,980 |
| Diwaniya | 324,148 | 351,092 | 319,131 | 361,368 | 364,949 | 380,720 |
| Diyala | 288,912 | 284,181 | 319,518 | 343,626 | 322,715 | 357,198 |
| Dulaim | 199,063 | 199,996 | 239,952 | 248,285 | 227,797 | 222,030 |
| Hilla | 320,087 | 364,942 | 306,319 | 436,523 | 434,789 | 408,278 |
| Kerbela | 375,591 | 308,693 | 397,757 | 356,427 | 428,911 | 431,666 |
| Kirkuk | 133,571 | 168,809 | 229,044 | 209,588 | 202,219 | 206,556 |
| Kut | 188,978 | 230,255 | 202,970 | 211,061 | 234,522 | 257,991 |
| Muntafiq | 247,293 | 255,185 | 297,433 | 327,114 | 277,494 | 285,306 |
| Suleimaniya | 141,406 | 146,185 | 194,126 | 193,919 | 203,251 | 187,427 |
| Totals | 4,368,325 | 4,780,483 | 5,401,687 | 5,586,725 | 5,656,424 | 5,876,336 |

7: International Bank N, S-4 (1951) 1952 MH1 Iraq MH1



743

TABLE 3

CLASSIFICATION OF HOSPITALS IN 1949

| Kind | Number | Beds 1st Class | Beds 2nd Class | Beds 3rd Class |
|---|---|---|---|---|
| I. HOSPITALS OF THE MINISTRY OF SOCIAL AFFAIRS | | | | |
| General | 39 | 53 | 185 | 2,720 |
| For Eye Diseases | 2 | | | 61 |
| For Venereal Diseases | 2 | | | 37 |
| For Infectious Diseases | 6 | 13 | 9 | 563 |
| For Leprosy | 1 | | | 240 |
| For Children | 1 | | | 89 |
| For Children (Welfare Hospital) | 1 | | | 35 |
| For Women & Children | 1 | | | 25 |
| For Mental Diseases | 1 | | | 85 |
| Prison | 6 | 4 | 2 | 105 |
| | 60 | 70 | 196 | 3,960 |
| II. OTHER GOVERNMENT HOSPITALS | | | | |
| Railways | 1 | 3 | 14 | 40 |
| Ministry of Education | 1 | | 26 | |
| Police | 1 | | 5 | 25 |
| Port | 1 | 5 | 6 | 14 |
| | 4 | 8 | 51 | 79 |
| III. NON-GOVERNMENT HOSPITALS | | | | |
| General | 4 | 57 | 26 | 147 |
| For Eye Diseases | 1 | 2 | 2 | 8 |
| Oil Companies | 4 | 18 | 16 | 109 |
| American Mission | 1 | | | 38 |
| | 10 | 77 | 44 | 302 |

Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
Iraq MH1



164 helminthosis are endemic. There are occasional outbreaks of
657 smallpox, typhus, and more rarely plague and cholera. With the greater provision in the budget for schemes of public health, the increased employment of international specialists and the considerable assistance tendered by the World Health Organization, there is every prospect that the incidence of endemic
874 diseases will be greatly reduced. Fundamental results may be
742 expected from modern medical training, with emphasis on the
657 environmental aspects of disease and the need for prevention as much as or even more than cure, and, above all, from the
● 743 efforts of the administration to improve the environment itself,
[312] with especial reference to drainage and water-supply. In addition, attention is to be paid to the public health aspects of the pilgrimages. The curative services have in general received more attention than the preventive and have improved considerably in the past thirty years. Simple conditions are treated in some 400 state dispensaries, distributed fairly evenly throughout the country but varying in their equipment and staff; it has hitherto proved difficult to attract doctors to the provinces and particularly to the rural districts. Each *liwa* centre has a general hospital, the larger towns more than one. There are also specialized hospitals for maternity and child welfare, for infectious, chest, eye, venereal, and mental diseases, and for lepers. The army, police, railways, Port of Basra, Ministry of Education, and oil companies maintain their own medical services and hospitals, and there are in addition an American Mission Hospital and a number of private nursing homes. A five-year programme, financed by the Development Board, will provide for the repair, extension, and replacement of medical buildings which have become old or inadequate. There is an acute shortage of well-trained nurses; attempts to expand the service are hampered by the reluctance of Muslim girls of good family to enter it.

*Education*

658 The state provides elementary, intermediate, secondary, and
871 higher education, all, since December 1952, completely free. There are also private and foreign schools on a kindergarten, elementary, intermediate, and secondary level.

*State Education.* Primary education, by law universal and compulsory where facilities exist, begins at the age of six and continues for six years. It has been limited by a shortage of schools and trained teachers, especially in the villages. Plans are in hand to meet the need. The rapid expansion of state primary education is demonstrated in the following table:

44:Matthews and Akrawi S, G-3 (1945-1946)1949 Mi Middle East
Iraq MHI



professors of the medical college who are nominated by the board of studies and approved by the Minister of Social Affairs. Members of the faculty have received their medical training at universities and hospitals in England, Egypt, Turkey, Paris, and Beirut.

[342] The College is housed in a modern building specially built for it with fairly extensive laboratories, dissection rooms, and lecture halls, large enough to accommodate 60 to 70 students in each of the six years. In addition, the College enjoys the extensive facilities of the teaching hospital on
• 743 the grounds of which it is situated. This largest of Iraq's hospitals has 600 beds in large wards and semiprivate and private rooms, thus accommodating patients of all classes. As the hospital receives patients not only from the Baghdad area, but also from all parts of Iraq, students have a chance of seeing a very large and representative variety of cases and diseases. The hospital has a very large outpatient clinic occupying a two-story building and some annexes where more than 700,000 new cases are treated each
743 year. Next to the College building is the large building housing the pathological and bacteriological institutes and the antirabic and vaccine-production institutes. On the same grounds is also the extensive X-ray building with facilities for both X-ray diagnosis and therapy, including fluoroscopy and radium therapy. All these facilities form part of the teaching facilities of the College.

### The College of Pharmacy

The College of Pharmacy, included for administrative purposes in the Royal College of Medicine, was established in 1936 and provides graduates of the secondary school with a four-year course leading to a Diploma of Pharmaceutical Chemist. In 1945–46 the enrollment was 98, with the four classes about equal in size. Upon graduation the student spends six months in practical work with a registered pharmacist and three months in a government dispensary. Students are admitted on the basis of a medical examination, public secondary-school examinations, personal interview, and geographical and minority distribution. Those who sign a contract to serve the Department of Health for four years after graduation are exempt from all fees except an instruction fee of 3 dinars ($12) yearly. Tuition fees for others are 33 dinars ($132) per year.

The College is administered by the dean assisted by a college board composed of permanent professors and lecturers. Members of the teaching staff are nominated by the dean, subject to the approval of the college board and confirmation by the Director General of Health.

The curriculum includes botany, general chemistry, business methods

53. In the course of our interview with the Ministers of Health and Social Affairs and their officials, we were offered facilities, of which we were unable, however, to avail ourselves, for visiting single-purpose centres, e.g., homes for the aged and for the blind, a rehabilitation centre for crippled boys, hospitals, and maternity clinics all under official patronage and in some, if not every instance, receiving a State subsidy. In a working class district of Baghdad we did, however, visit a maternity clinic that had been started by the Red Crescent Society. It had recently come under the direction of an English woman doctor, assisted by, possibly, the only certified Iraqi Public Health nurse in the country. Both spoke of the improvement in health which was to be observed amongst the out-patients, and of the evident appreciation by the latter of the assistance afforded, but the shortage of milk for the infants was a matter of concern. Some benefit may come in this respect from the discussions then in progress between the Iraq Government and UNICEF for the provision of a pasteurising plant. The Ministry of Social Affairs have recently taken over from the Red Crescent Society the responsibility for the staff employed at the clinic and for providing certain necessary supplies and medicaments. 657 185 657 143 185

54. It is perhaps worth adding that the remarks made during our visit by the staff of the clinic on the subject of attempts to teach sewing to the out-patients while waiting for attention and the difficulty of keeping amused the numerous children who come with their mothers, suggests that there is scope at the clinic (and no doubt other similar institutions) for better educated women of leisure, many of whom contribute generously from their purses to such works, to undertake another simpler form of voluntary social service for which little or no preliminary training is required. Indeed, it is not impossible that with such assistance and under favourable conditions a rudimentary club or community centre might be developed for the women in the district whose standard of life is very low but who have shown a desire to improve it. A development on these lines would have the merit of encouraging educated women of leisure in Baghdad to take part in voluntary social services. It will be long before trained, professional social workers will be available in sufficient numbers for such duties. We had however, no opportunity of discussing these suggestions with anyone in a position to transform them into actuality. 657 185

55. We heard from Miss Govan (UNRAA expert) of a scheme with which she had been associated for training 25 young women as social workers. The scheme had made some progress but was momentarily hindered, partly by difficulties in providing local facilities for completing practical in-service training and in persuading the girls' parents to permit them to take up duty away from home.

56. Although we were met with every possible courtesy during our visit to Iraq, the fact that a caretaker Government was in office and a general election was about to take place created a situation in which it was pointless to discuss in detail with the departments concerned, future plans and policies for social development.

57. Recommendation. Until the MacGregor-Khaddoury scheme has been more closely studied by the departments concerned and the necessary financial provision has been approved, we are unable to make any recommendations.

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MH1

600 istrative branches. The Director of Curative
744 Medicine has supervision over 4 depart-
657 ments: hospitals, dispensaries and pharma-
743 cies; rural health; technical institutes, including 6 laboratory sections; and medical stores. Under the Director of Preventive and Social Medicine are departments of endemic diseases, sanitation, social health, quarantine and epidemics, vital statistics and disease registration. Subordinate sections dealing with maternal and child health, venereal diseases, pulmonary diseases and health propaganda are incorporated in the Department of Social Health, while supervision over the health services of both the province and the city of Baghdad falls within the scope of the Department of
742 Sanitation. The Department of Endemic Diseases carries on research and field programs for the control of malaria, schistosomiasis and hookworm infection, some of which were initiated by the then Institute of Endemic Diseases, created in 1949. Further changes in organization, making the Director of Preventive and Social Medicine a Director General immediately responsible to the Minister, were proposed in 1953.

746 Subordinate provincial organizations carry out the functions of the Ministry of Health in the 14 *liwas*, or provinces. Chief medical officers are appointed to each *liwa* and are responsible for the conduct of the various medical services. They undertake some public health activities, but, to a large extent, the preventive services are directed from Baghdad. Municipal health divisions are established in Baghdad and the principal cities.

744 Other ministries are also concerned in some measure with the public health. The Ministry of Education operates school health services in Baghdad and the larger urban centers, and introduces instruction in the basic principles of health through the schools in urban and rural areas. The Ministry of Economics has veterinary and agriculture departments: the former has meat and dairy inspection services; the latter runs an experimental farm and a pas-

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MH1

744

teurization plant near Baghdad and seeks to improve the standards of agriculture which should be reflected in better nutrition among the people. The Ministry of Communications and Works maintains health and medical facilities at the port of Basra, and furnishes medical care for railway personnel.

746
751

Several voluntary agencies carry on health work, usually in co-operation with the Ministry of Health. The Children's Welfare Society conducts an extensive program for the promotion of maternal and child health, and operates welfare centers in Baghdad and the administrative centers of the remaining provinces. The Red Crescent Society supports a child health center in Baghdad, and provides training for girls in first aid and home nursing through branches in Baghdad, Basra, Hilla, Amarah and Kirkuk. The Anti-Tuberculosis Society campaigns against tuberculosis, and contributed toward the erection of a sanatorium, opened in 1951, near Baghdad. The

743

Catholic Nuns Society runs a small general hospital and dispensary, and the Society of Buyout el Umma an ophthalmic hospital and dispensaries in Baghdad.

747
743

The Board of Foreign Missions of the Reformed Church of America maintains a medical mission in the Amarah region. It operates a hospital and founded the leper colony, which has since been taken over by the government. The Seventh Day Adventists also have a hospital in Baghdad. The

[466]

Iraq Petroleum Company and its subsidiaries, the Mosul Petroleum Company and the Basra Petroleum Company, provide medical and health services for the benefit of their employees.

### Medical Institutions

743

**Hospitals and Dispensaries.** In 1950, there were 82 civilian hospitals in Iraq with an aggregate capacity of 4,901 beds, or slightly over 1 bed per 1,000 population. Of this number, 2,086 beds were located in Baghdad, 534 in Basra and 412 in Mosul provinces. Sixty-seven hospitals, with a

83:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MN1

combined capacity of 4,330 beds, were operated by the government health authorities; 4 hospitals with 153 beds by other governmental agencies; and 11 hospitals with 418 beds by industrial, mission or private organizations. Free medical care was provided in 4,475 beds, representing over 90 per cent of the hospital beds available in the country.

The Royal Hospital in Baghdad is foremost among the institutions under the jurisdiction of the Ministry of Health. It has medical, surgical, pediatric and infectious disease sections, with a total capacity of 650 to 750 beds. The remaining hospitals of the Ministry now come under the authority of the Director of Curative Medicine. According to the statistics for 1950, they included 42 general hospitals, with an aggregate capacity of about 2,300 beds, of which one or more in each province were Grade 1 hospitals under the supervision of medical officers. Maternity and child welfare divisions were incorporated in the general hospitals, which provided 962 beds for maternity cases and 134 beds for children. The special institutions consisted of 6 isolation hospitals with a total capacity of 596 beds, 3 ophthalmic hospitals with 79 beds, 2 venereal disease hospitals with 52 beds, 2 child welfare hospitals with 155 beds, 3 maternity and children's hospitals with 71 beds, a mental hospital of 120 beds, a leper hospital of 180 beds and 6 prison hospitals with 92 beds. A 400-bed tuberculosis sanatorium, which was sponsored in part by the Anti-Tuberculosis Society, was opened near Baghdad in 1951. Another 120-bed hospital in Basra was completed in 1952.

The American Mission hospital, with 38 beds, in Amarah and the new Seventh Day Adventist hospital, with 60 beds, in Baghdad are prominent among the private institutions. As of 1951, 3 hospitals with a combined capacity of 170 beds were operated by the Iraq Petroleum Company in the Kirkuk region. The medical facilities of the company in the oil field and the pipeline areas also included 20 detention camps, with

743
[657]
737
743
743
742
p. 23(B)

743 82 beds for emergency care, and field ambu
466 lance services. The Basra Petroleum Company maintained a 15-bed hospital at Basra, a 16-bed hospital at Fao and 12 emergency beds in 2 detention camps. The Mosul Petroleum Company had 10 beds for emergency cases in a camp near its exploration activities.

743 In addition to the regular hospital clinics, 433 dispensaries were scattered throughout the provinces in 1950. Of this number, 403 belonged to the government health services: 145 were staffed by physicians and the remainder by assistant medical personnel. There were also 11 mobile dispensaries, which covered the more remote villages and tribal areas, and 2 floating dispensaries on the river in Basra and Muntafiq provinces. Only 7 tuberculosis dispensaries existed in 1950, but 13 dispensaries, some with facilities for 20 beds, were under construction in the provincial capitals. The Ministry operated 5 ophthalmic dispensaries and 4 "institutes" for the treatment of venereal diseases. A diagnostic and research center was organized in Baghdad in 1950, in connection with the syphilis-bejel control project being conducted under the auspices of the World Health Organization.

743 The infant and child welfare centers
744 functioning in 1950 totaled 21, most of which were supported by the Children's Welfare Society. Ten centers were located in the Baghdad region. An expanded maternal and child health program is now being developed by the Ministry of Health. In 1952, it started a demonstration and training project at Samawa, with assistance from the Technical Co-operation Administration of the United States government. Another demonstration center for the training of local medical personnel in the principles of maternal and child health is scheduled to be opened in Baghdad in 1953-54, in conjunction with the World Health Organization and the United Nations International Children's Emergency Fund. The proposed program of the Ministry calls for the crea-

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MH1

743 tion of rural health centers, each to serve
744 an area of 20,000 to 30,000 population, as rapidly as adequate staff and funds become available.

742 **Laboratories.** The central laboratory facilities of the Ministry of Health are concentrated in 6 institutes, all with headquarters in Baghdad. The pathologic and bacteriologic institutes are associated with the Royal College of Medicine, and combine research and teaching with routine laboratory functions. The Institute of Bacteriology consists of a diagnostic section, equipped for the conduct of serologic, bacteriologic and parasitologic examinations, and a vaccine unit for the preparation of typhoid, plague and cholera vaccines. The Institute of Pathology has divisions for the performance of biochemical and pathologic examinations. A third institute merges the former Vaccine Lymph Institute, which manufactures smallpox vaccine for use throughout the country, and the Antirabic Institute, which prepares rabies vaccine and provides treatment and diagnostic services. The Medico-Legal Institute incorporates forensic medicine, anatomy and photographic sections. The Chemical Institute has facilities for the analysis of food, water and milk, and of various agricultural and industrial preparations. An Institute of Roentgenology, with branches in Baghdad, Basra, Mosul and Kirkuk, furnishes diagnostic and treatment services. The Department of Endemic Diseases operates a diagnostic and research laboratory in Baghdad, in connection with the government's malaria, schistosomiasis and hookworm control programs. Field units are stationed in the northern, the central and the southern provinces.

An Institute of Medical Research is established at the Royal College of Medicine: it includes clinical divisions and pathologic, chemical and biochemical laboratories. A research serologic laboratory is maintained in Baghdad in conjunction with the World Health Organization's syphilis-bejel control program. Clinical laboratory

provinces, and conducts research and field investigations on the distribution and the control of the disease and the intermediate snail host. In the 7 years 1944-50, from 15,800 to 27,300 persons were treated annually in government hospitals and dispensaries. The disease is considered commonplace in most areas, however, and probably not over 5 to 6 per cent of the infected individuals seek treatment under ordinary conditions. Since 1949, special dispensaries have been established in Baghdad, Basra and Kufa, while mobile clinics tour the most seriously infected districts. In 1950, there were 11 mobile units for the treatment of schistosomiasis, malaria and hookworm infection among the rural populations.

ANCYLOSTOMIASIS. Ancylostomiasis is widespread in the irrigated areas, but the exact distribution and severity of the infection in the different provinces are not accurately known. *Ancylostoma duodenale* is the only species found in the foci studied. The infection rates are generally estimated at 10 to 20 per cent in the northern provinces and at 40 per cent in the southern. They are especially high in the Amarah and the Al Qurnah regions, but decrease toward the south, and are relatively low in the districts along the Shatt al Arab. In a study reported in 1939,[47] fecal specimens from apparently healthy men, 18 to 20 years of age, from various parts of the country were examined for hookworm ova. The presence of ova was detected in 25 per cent of the specimens from 125 men from Baghdad and in 46 per cent from 135 men from the rural districts of Baghdad *liwa*. Comparable examinations revealed ova in the specimens from 26 per cent of the individuals examined from Diyala *liwa* and from 25 per cent of the individuals from Dulaim. The degree of infection is usually mild, but serious cases with hemoglobin indices as low as 10 per cent are not infrequent.

Treatment facilities are provided by the schistosomiasis control units, as well as by the government hospitals and dispensaries.

p. 88(B)

164 pulmonary infections, but tuberculous meningitis is common in young children. Among 838 cases of nonpulmonary tuberculosis admitted to the surgical wards of the Royal Hospital in the 4 years 1947-50,[14] over 26 per cent were diagnosed as lymphadenitis and over 21 per cent as infections of the spine.

164 743 The new 400-bed sanatorium opened near Baghdad under the joint auspices of the Anti-Tuberculosis Society and the government health authorities in 1951 was the first tuberculosis hospital in the country. Previously, facilities for the treatment of tuberculous cases were provided only in the provincial hospitals, or in sanatoria in Syria and Lebanon, where the Ministry of Health subsidizes about 200 beds for the use of Iraqi patients. Plans have been projected by the Ministry for the construction of tuberculosis hospitals in each of the provinces: a 120-bed hospital was completed in Basra in 1952, and it was anticipated that hospitals would soon be ready for use in Kirkuk and Mosul. As of 1950, the dispensaries available for the treatment of chest diseases totaled 6, of which 2 were located in Baghdad and one each in Mosul, Kirkuk Diwaniya and Sulaimaniya. X-ray laboratories were maintained in Baghdad, Kirkuk and Mosul.

457 743 164

751 A BCG inoculation and tuberculin testing program was initiated by the Ministry in 1952, in conjunction with the World Health Organization and the United Nations International Children's Emergency Fund. It is proposed to concentrate at first on the children and the adolescents in the larger cities. In 1952 also, the World Health Organization sponsored the establishment of a tuberculosis demonstration and training center at the Royal Hospital in Baghdad.

164 Smallpox. Epidemics of smallpox break out almost annually, and reach major proportions at intervals of 3 to 8 years. Since 1930, large-scale epidemics were reported in 1932-33, 1940-42, 1946 and 1948-49. In the 1932-33 outbreaks, the peak of incidence came in 1932, when 2,318 cases were re-

164 prevalent. In most areas the prominence of eye lesions is aggravated by the frequency of dust-laden winds and by the glare of the sun. Conjunctivitis is the leading cause of morbidity among the employees of the Iraq Petroleum Company in the Kirkuk oil field and pipeline stations. It comprises almost one half of the cases of infectious disease treated each year. Gonococcal ophthalmia is responsible for considerable blindness, par-
743 ticularly in the urban communities. The
164 Ministry of Health operates 3 ophthalmic hospitals and 5 dispensaries in Baghdad and other cities, and provides special facilities for the treatment of eye diseases in the provincial hospitals and dispensaries.

164 **Diseases of the Skin.** The low standards
515 of hygiene prevailing among both urban and rural populations are conducive to the
164 spread of skin infections. Mycotic infections of various types are seen in large numbers. Favus predominates: from 10 to 15 cases constitute the usual daily quota at the clinic of the Royal Hospital in Baghdad. Cases of actinomycosis and Madura foot are often observed. Impetigo and erysipelas are common. Scabies is widespread. Phagedenic ulcers and cases of human myiasis are en-
136 countered from time to time. A form of
164 dermatitis, caused by contact with cercariae of nonhuman strains of *Schistosoma*, is frequent in the southern provinces. The bites of sandflies produce skin lesions in susceptible individuals, and are apt to become infected.

164 **Leprosy.** Leprosy is endemic, especially in the marsh and the lake districts of the south. The actual prevalence of the disease is uncertain, but local observers estimate that it probably does not exceed 400 to 500 cases. From 179 to 279 cases were reported annually in 1944-49, with from 46 to 86 new infections. A focus formerly existed around Baghdad, but within recent years relatively few indigenous cases have been found in the
743 central and the northern provinces. A leper colony is maintained by the government on an island near Amarah: it usually has 250
TO 300 PATIENTS IN RESIDENCE.

p. 42(B)

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MH1

to 300 patients in residence. A comprehensive leprosy control program is planned for the near future by the Ministry, in co-operation with the World Health Organization.

Other Infections. Rabies is enzootic among dogs, jackals and other animals. The jackals, the principal reservoir, often invade the villages and the outlying sections of the towns. Human infections occur sporadically: in 1944-49, the recorded cases averaged from 4 to 32 a year. In the same period, from 739 to 1,365 persons were treated annually at the Antirabic Institute in Baghdad. The majority gave a history of having been bitten by rabid dogs. The Institute also prepares rabies vaccine for distribution throughout the country.

Anthrax is prevalent among the sheep. From 130 to 225 human cases are reported annually among persons in contact with infected animals, or among individuals working with hides or wool. Tetanus is sporadic: the known incidence totals 130 to 250 cases each year. Tetanus neonatorum is common, especially in the rural areas. Cases of human glanders are seen from time to time. Leptospirosis, or Weil's disease, is occasionally encountered in the southern provinces. However, no evidence of infection with *Leptospira icterohaemorrhagiae* has yet been found among the rats captured in Baghdad.

### Diseases Spread by Arthropods

Malaria. Malaria is endemic or hyperendemic throughout most of Iraq. The distribution and the severity of the disease vary with the physiographic features of the different regions and the amount and the type of irrigation. It has always been regarded as a disease of primary importance in the country, but within the last few decades it has become increasingly prominent in the southern provinces due to the expansion of irrigation facilities. The cases of malaria treated in government institutions in the 7 years 1944-50 averaged about 598,800 annually. The case rates in the various provinces, based upon the at-

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
IRAQ MH1

## SUMMARY

Iraq encompasses the valleys of the Tigris and the Euphrates rivers, and is associated historically with Mesopotania, the home of ope of the oldest civilizations on record. It has been an independent sovereign state since 1932. The population, which was estimated at 4,799,500 in 1947, is 95 per cent Moslem and predominantly Arab. Extensive petroleum resources and date cultivation contribute to the wealth of the country, which is still relatively underdeveloped in other respects. The public health activities of the Iraqi government are centralized in the Ministry of Health, with headquarters in Baghdad. The Ministry is responsible for the maintenance of preventive and curative services, which are carried out in the provinces through subordinate provincial organizations. Municipal departments exist in Baghdad and the principal cities, but in other areas the enforcement of sanitary regulations devolves upon the government officers. In 1950, there were 82 civilian hospitals in the country, with an aggregate capacity of 4,901 beds, or slightly more than 1 bed per 1,000 population. Almost one half of the total beds were located in the Baghdad area. Approximately 82 per cent of the hospitals are supported by the government. Also in 1950, 433 dispensaries were functioning in various parts of the provinces, 403 under the jurisdiction of the government health authorities.

The water supplies in the towns and the villages of the alluvial plain are derived from rivers, canals, lakes and wells; in the northern highlands, from streams, springs and wells. All the urban supplies are obtained from rivers, except in Erbil and Sulaimaniya, where spring sources are utilized. The water supplies of the larger cities are treated, but those in the rural areas are unprotected and often polluted. There are no sewerage systems. In the cities, cesspits and septic tanks are employed for the disposal of sewage; in the rural villages, the means are more primitive. The dietary

131
161
433
744
743
312
314
600